



# Coastal Ocean Research and Monitoring Program (CORMP)

## Southeastern Atlantic Coast

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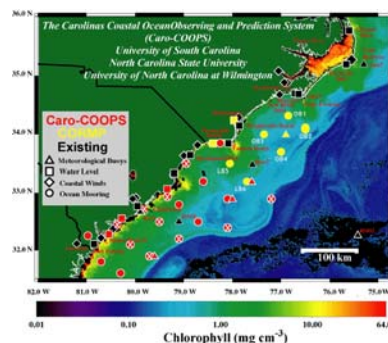
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The Coastal Ocean Research and Monitoring Program (CORMP) is a research program and observing system in the coastal ocean off the Carolinas. The program is funded by NOAA to provide an interdisciplinary science-based framework that supports sound public policy, wise coastal use, sustainable fisheries and improved coastal ocean ecosystem health.

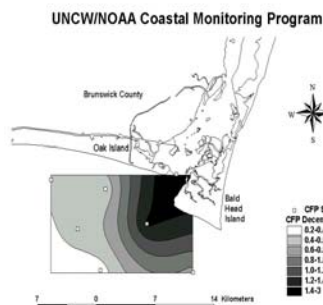
CORMP's research and monitoring efforts are focused and presented in three areas:

- An oceanographic and meteorological observation system designed to measure, describe and model physical conditions in the region
- Effects of the Cape Fear River plume, which drains one third of North Carolina's watershed, on water quality productivity and fisheries recruitment in the near-shore coastal ocean environment
- Dynamics of a highly perturbed (by frequent storms) continental shelf in terms of biological, chemical and physical coastal ocean processes

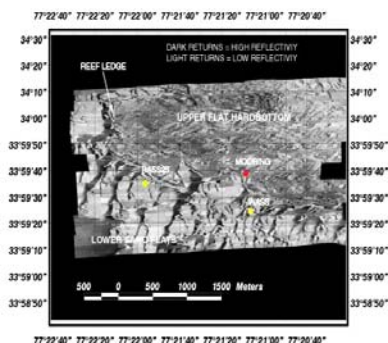
CORMP is closely integrated with other existing and emerging coastal ocean observing programs in the Southeastern Atlantic coast of the U.S. The program produces information that meets the needs of a broad spectrum of user groups; it provides cost-effective means of obtaining and applying coastal ocean environmental data; and it enables a synergy between the detection of changes in the environment and research required to understand, model and predict such changes. Results benefit a wide range of constituencies from emergency planning and coastal management to fisheries and recreation.



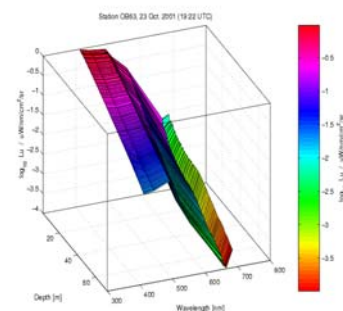
CORMP and Caro-COOPS (Carolinian Coastal Ocean Observing and Prediction System) observing systems.



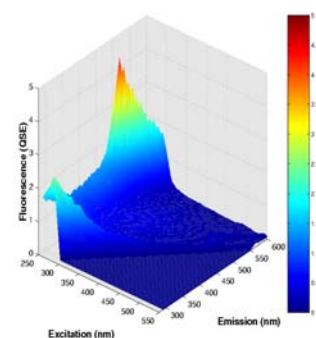
CORMP Cape Fear River plume as delineated by  $K_d$  ( $m^{-1}$ ) calculated from scalar PAR light profiles taken at 7 stations. Cape Fear Plume station 1 (CFP1), the top right station, is located at the mouth of the River off Southport, NC.



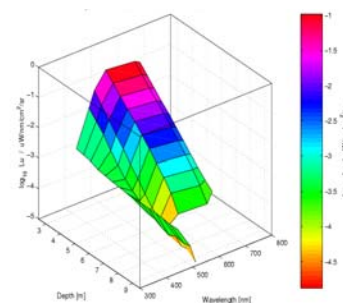
23-Mile Site sidescan sonar mosaic



3-dimensional plot of depth profile of upwelling radiance at the Station OB63, 23 October 2001, (19:22 UTC).



3-dimensional plot of Excitation-Emission spectra of CDOM fluorescence intensity in the Onslow Bay, Station OB63, 19 Nov. 2001, (19:40 UTC).



**Figure 2a.** 3-dimensional plot of depth profile of upwelling radiance at the Cape Fear River, near Fort Fisher, 29 October 2001, (16:30 UTC).



One aspect of CORMP is the development and employment of non-microscope methods for distinguishing between the crab *Callinectes* species in the larval and early post-settlement stages.